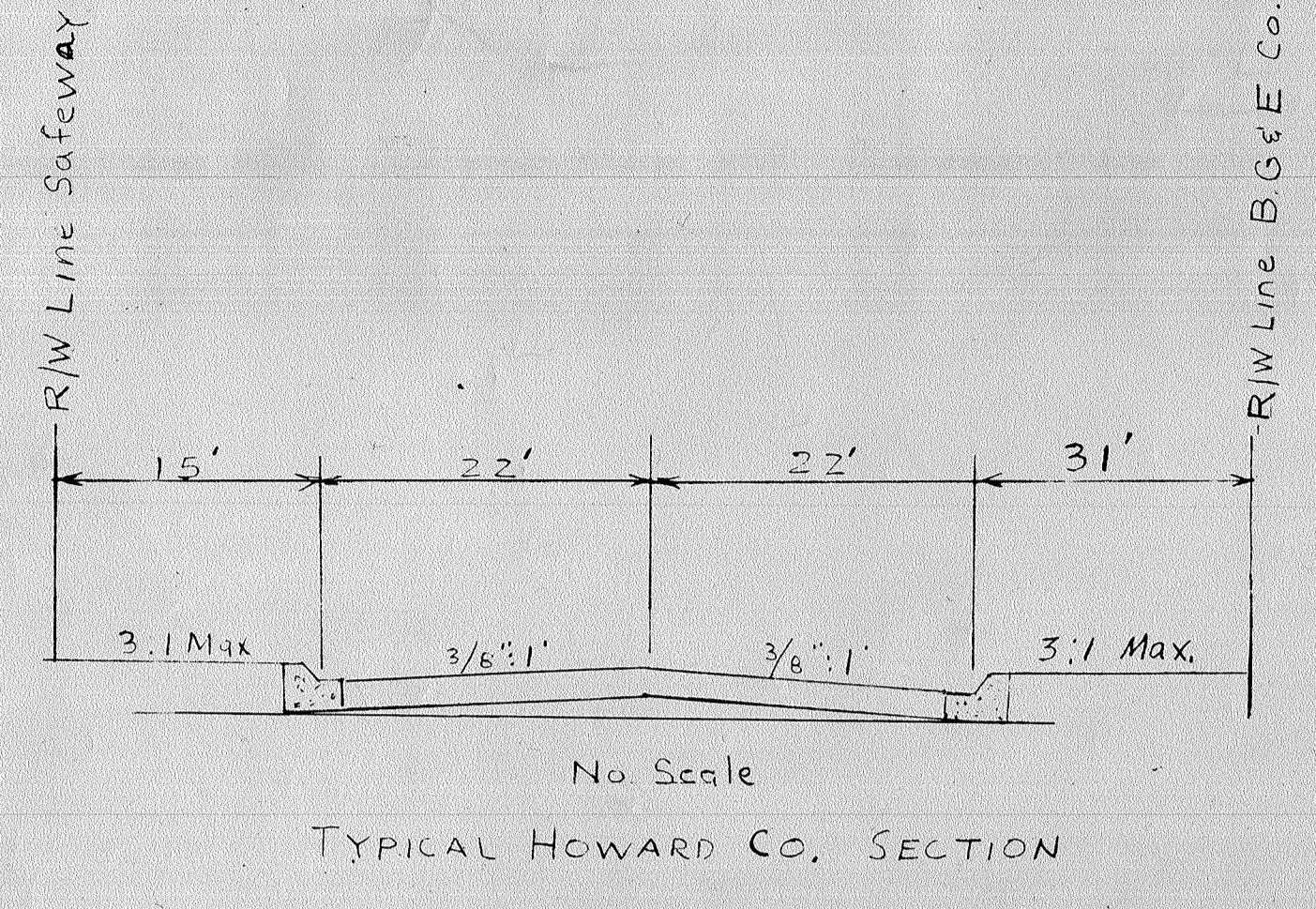
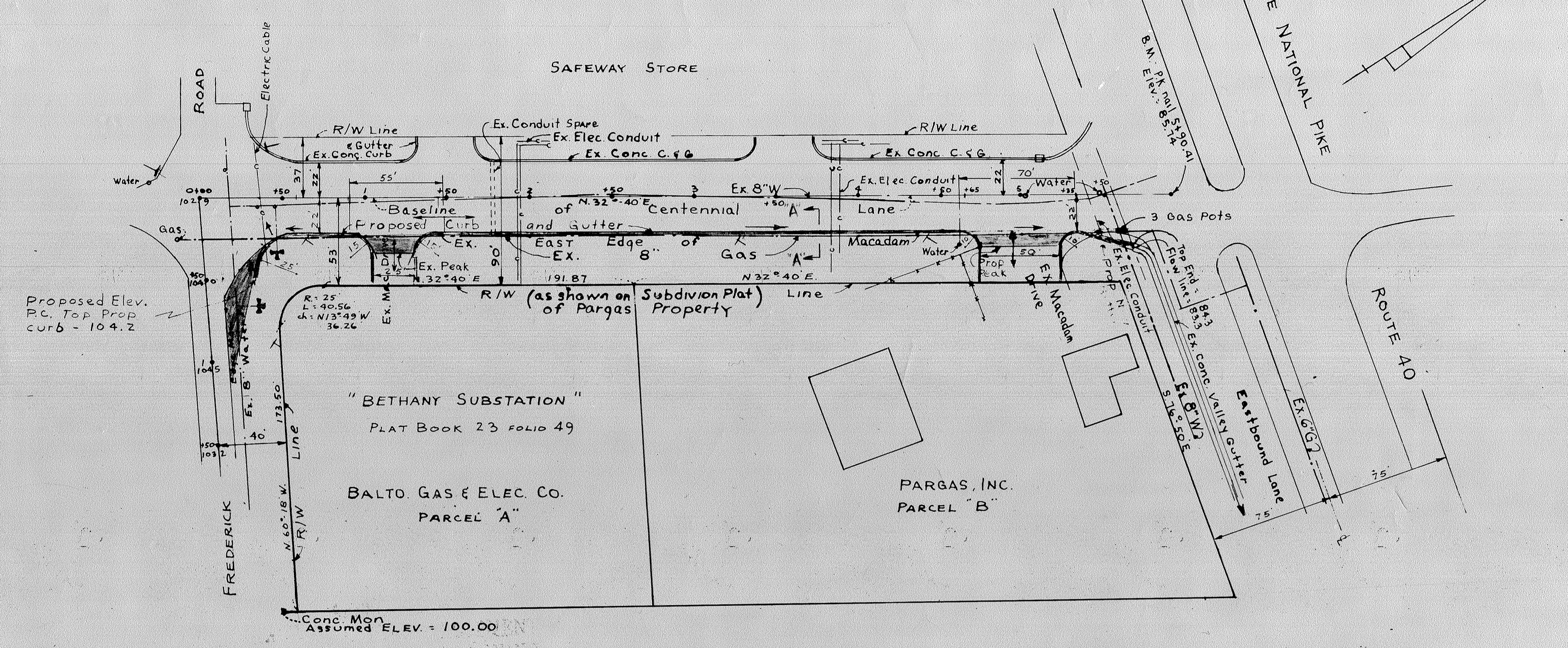


NOTES

1. ALL AREAS DISTURBED BY GRADING FOR CURBING INSTALLATION TO BE STABILIZED BY SEEDING AND MULCHING AS SOON AS AREAS ARE AVAILABLE FOR GROUNDS PREPARATION. APPROXIMATELY 2 INCHES OF TOP SOIL WILL BE APPLIED AND SEEDED WITH 70% KENTUCKY FESCUE, 20% DOMESTIC RYE AND 10% CREEPING RED FESCUE AT THE RATE OF 6 POUNDS PER 1000 SQ. FT. WITH RYE GRAIN APPLIED AS NECESSARY FOR TEMPORARY COVER.
2. FIELD TO MATCH EXISTING CONC. "V" GUTTER AS SHOWN LOCATED IN THE N.W. CORNER OF PARGAS INC. PROPERTY.
3. FIELD TO REPAIR EXISTING PAVING ALONG EDGE OF NEW CURB INSTALLATION AND EXTEND PAVING INTO DRIVEWAYS TO END OF CURB RETURNS. ENTRANCE DRIVEWAY SECTION TO BE PAVED SHALL BE SIMILAR TO DWG-D-4 SHOWN IN HOWARD CO. ROAD CONSTRUCTION CODE AND STANDARD SPECIFICATIONS REV. AUGUST, 1968.

PLAN AND PROFILE OF PROPOSED CONCRETE CURB & GUTTER ON EAST SIDE OF CENTENNIAL LANE - 2ND DIST. - HOWARD CO. MD ALONG PROPERTY OF BALTIMORE GAS AND ELECTRIC COMPANY AND PARGAS, INC



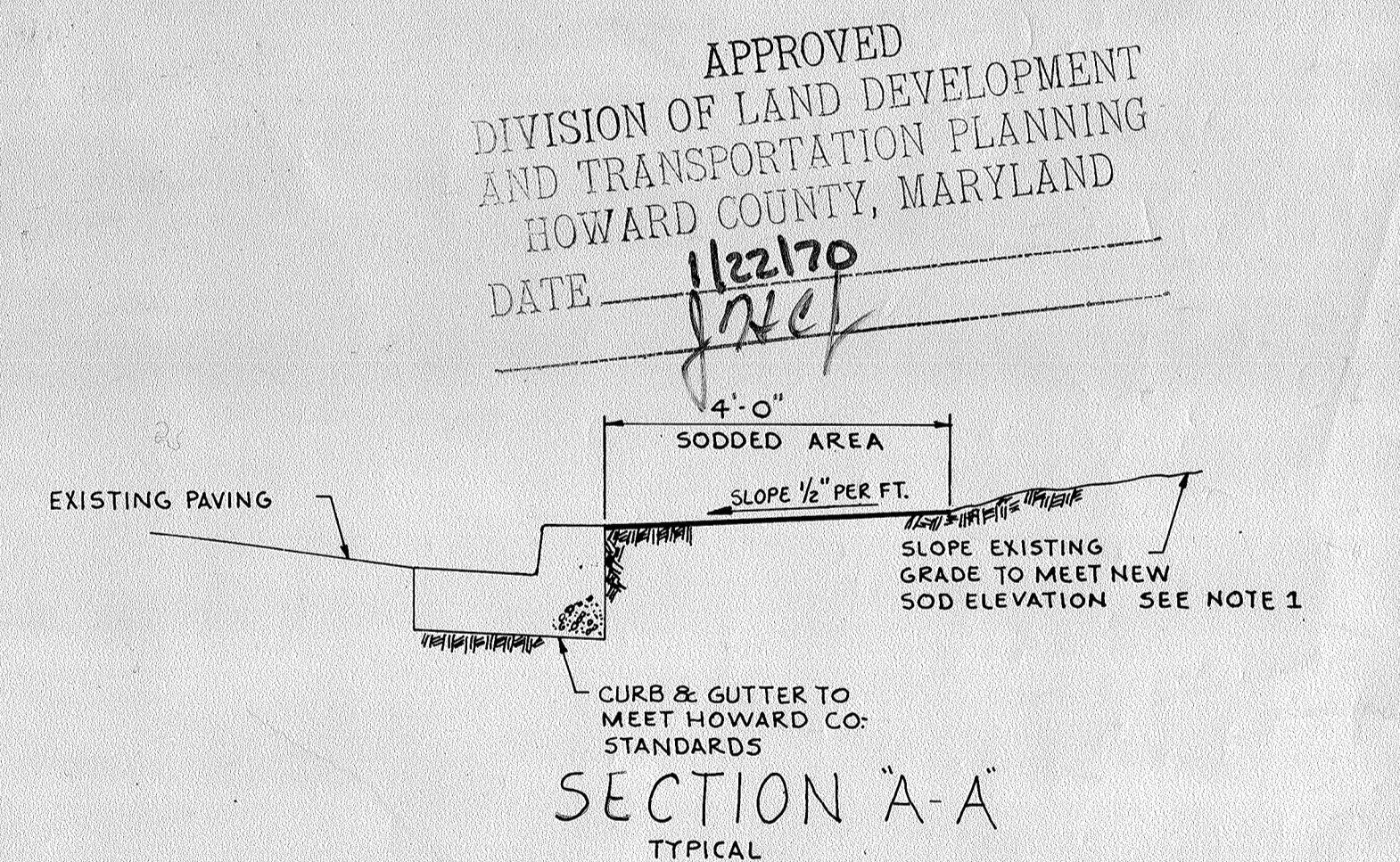
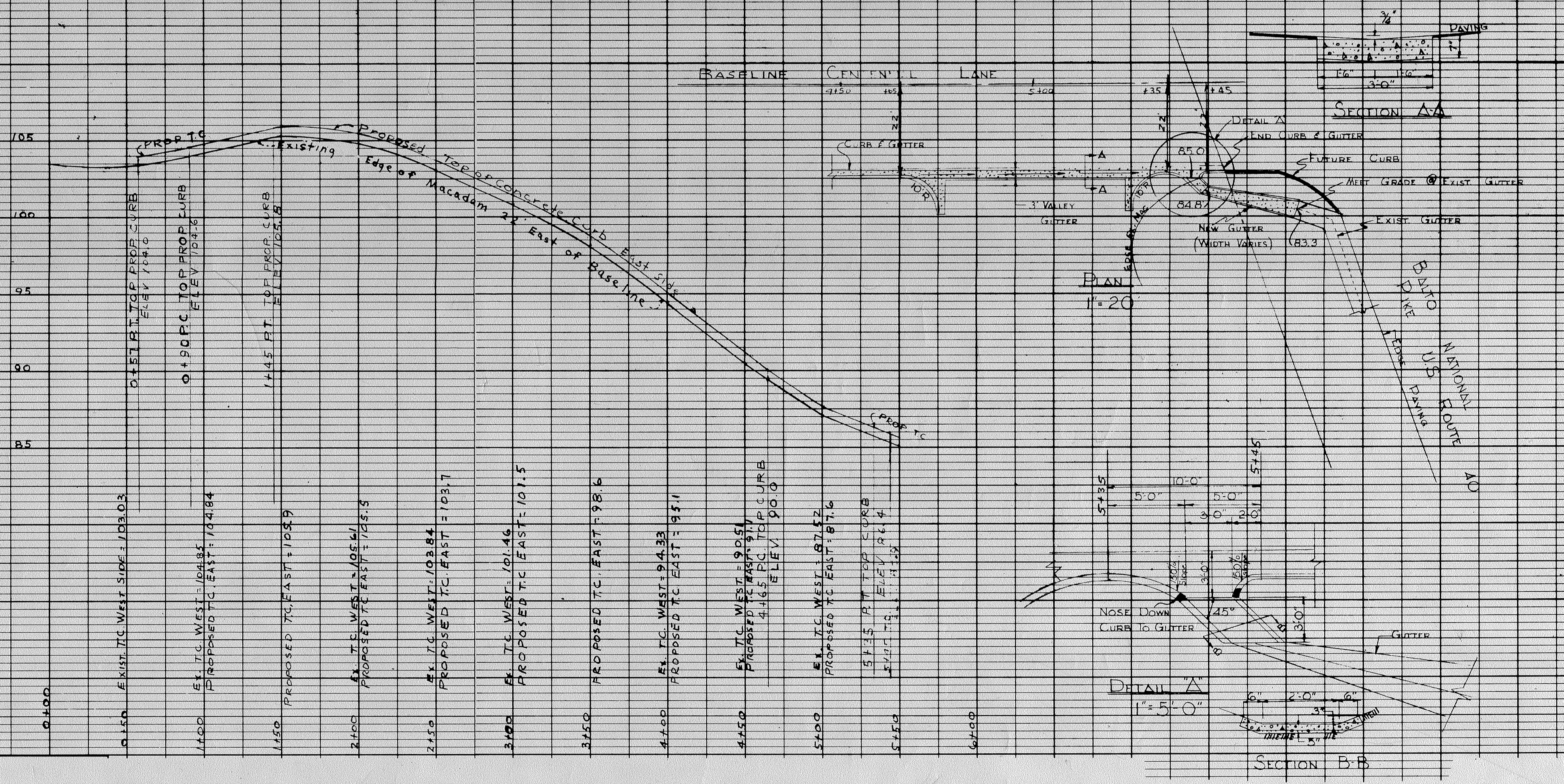
- SHEET INDEX
1. CURB AND GUTTER DETAIL EAST SIDE OF CENTENNIAL LANE OUTDOOR SUBSTATION
  2. PLOT PLAN FOR BUILDING PERMIT OUTDOOR SUBSTATION
  3. CONSTRUCTION DETAILS
  4. CONSTRUCTION DETAILS, GENERAL NOTES AND SPECS

ALL CONSTRUCTION TO CONFORM TO HOWARD CO. AND/OR MARYLAND S.D.C. STANDARDS AND SPECIFICATIONS

LOCATION OF EXISTING GAS MAIN BY M.S. COPY IS RECORDED VAUS

2.1.4 EAST OF STATION 1490  
2.4.0 EAST OF STATION 1490  
2.3.5 EAST OF STATION 1490  
2.4.8 EAST OF STATION 1490  
2.4.0 EAST OF STATION 1490

UNDERGROUND UTILITIES SHOWN HEREON ARE TAKEN FROM PLATS FURNISHED BY HOWARD COUNTY



APPROVED  
DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING  
HOWARD COUNTY, MARYLAND  
DATE 1/22/73  
[Signature]

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEM, HOWARD COUNTY HEALTH DEPARTMENT.  
[Signature] 1/26/73  
COUNTY HEALTH DEPARTMENT DATE

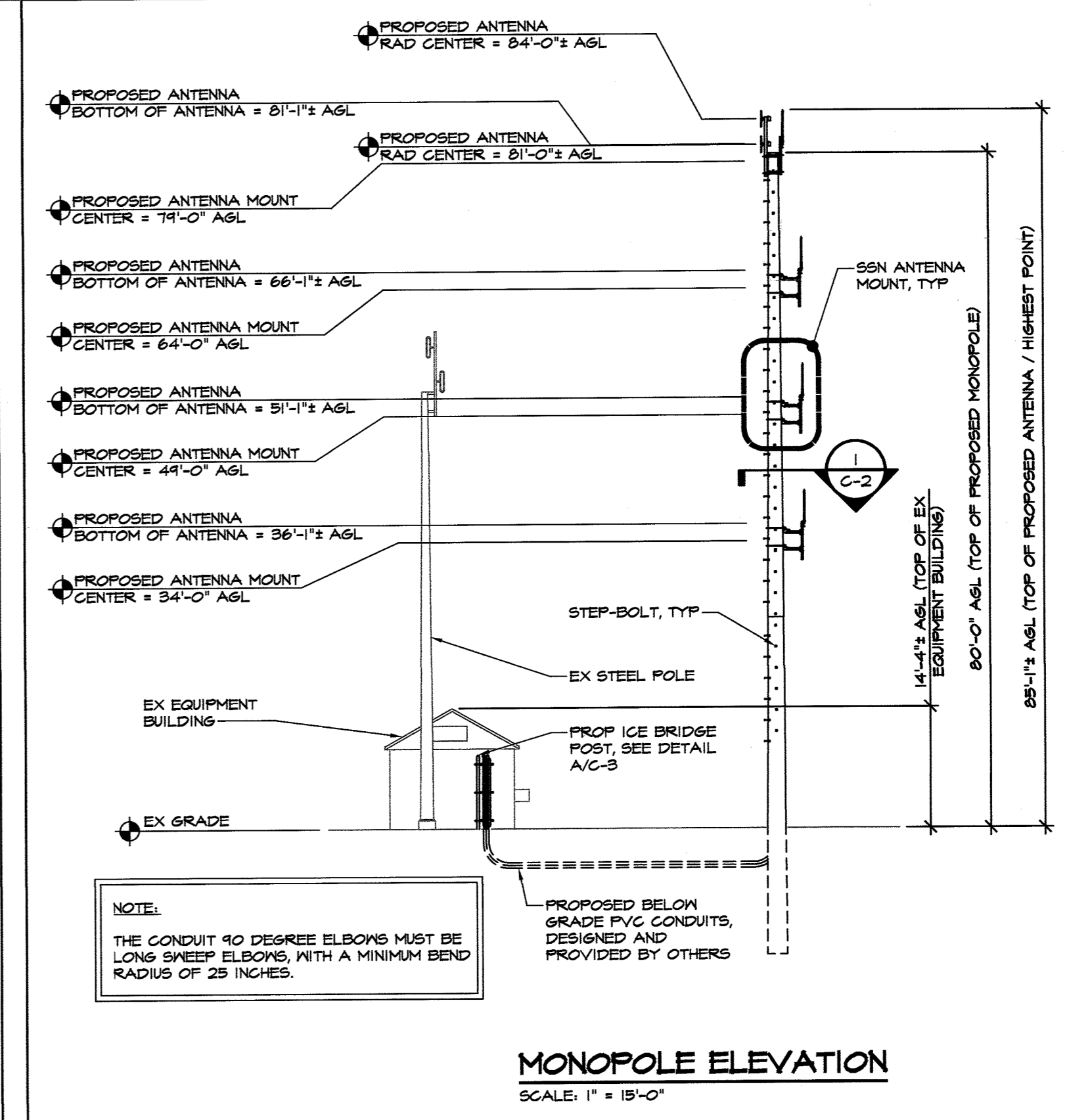
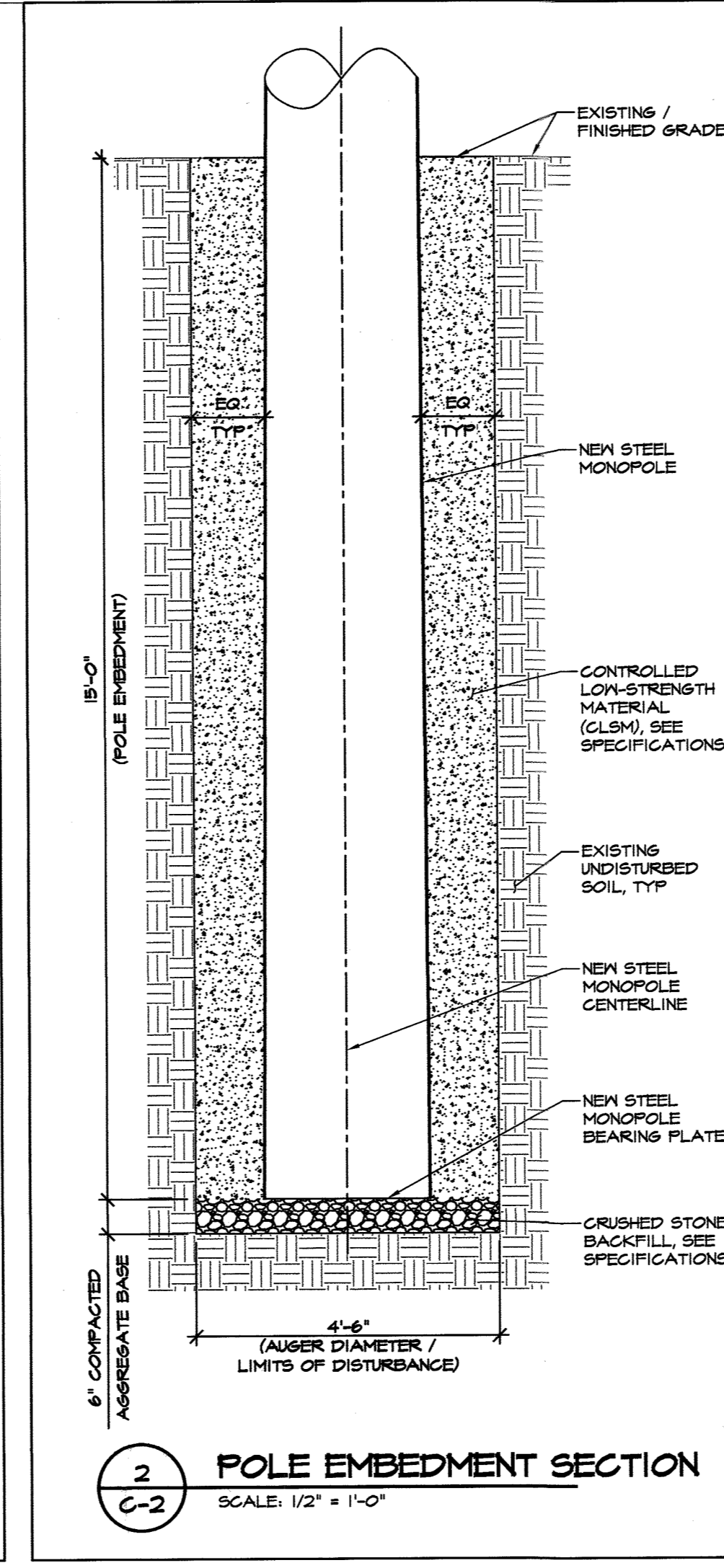
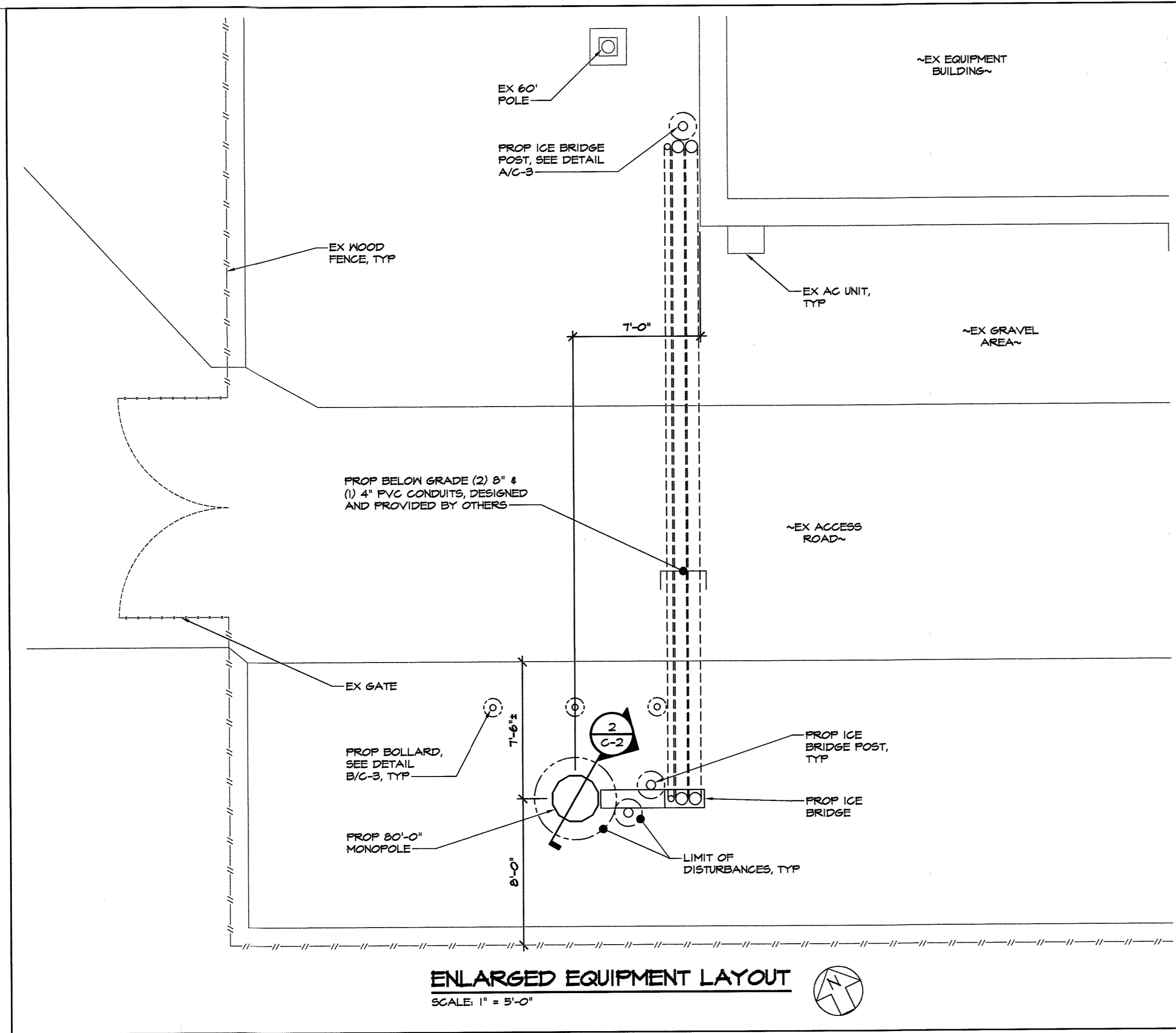
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING  
[Signature] 1-31-73  
PLANNING DIRECTOR DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE AND STORM DRAINAGE SYSTEMS AND ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
[Signature] 1/25/73  
DIRECTOR DATE

[Signature] 1/25/73  
CHIEF, BUREAU OF HIGHWAYS DATE

REV.	DATE	DESCRIPTION	APPROVAL
D	3-9-2020	REVISED SITE DEVELOPMENT PLAN FOR TELECOM STRUCTURE AND 2 NEW MANHOLE DETAIL SHEETS, ADDED SHEET INDEX TO PAGE 1.	[Signature]

ENGINEERING CIVIL [Signature] 6/16/72 MECH. [Signature] ELEC. CHIEF ENG. MANAGER	CURB AND GUTTER DETAIL EAST SIDE OF CENTENNIAL LANE OUTDOOR SUBSTATION BETHANY SUBSTATION
DESIGN & DRAFTING DESIGNED DRAWN DLH CHECKED [Signature] APPROVED [Signature] 6-14-72	BALTIMORE GAS AND ELECTRIC COMPANY ELECTRIC ENGINEERING DEPARTMENT
REPROD. FROM DWG. SCALE 1"=50'-0" PKC DATED DWG. NO. 66-613-E 10F4	

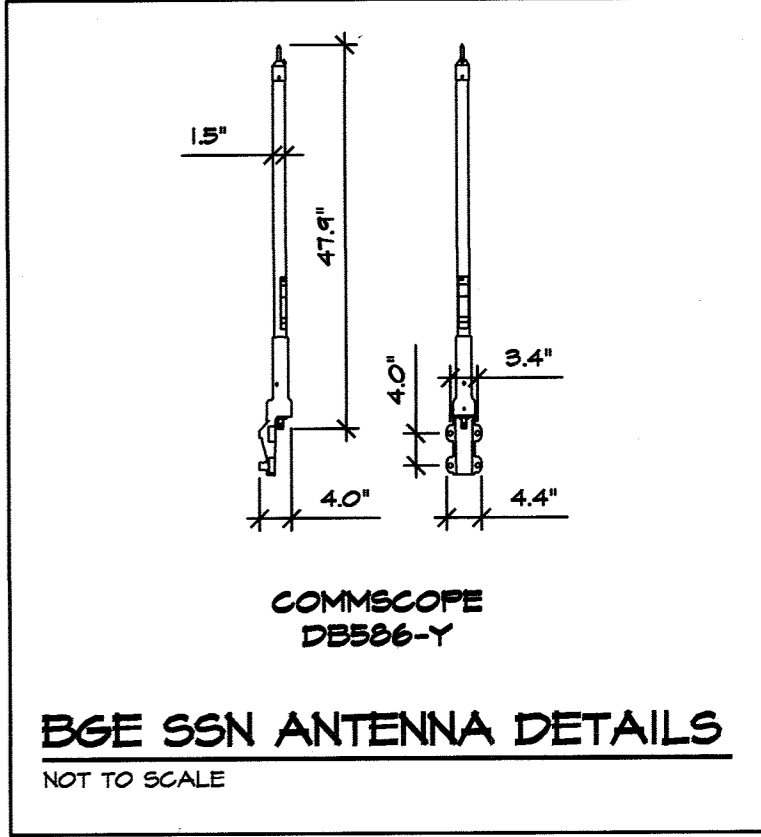
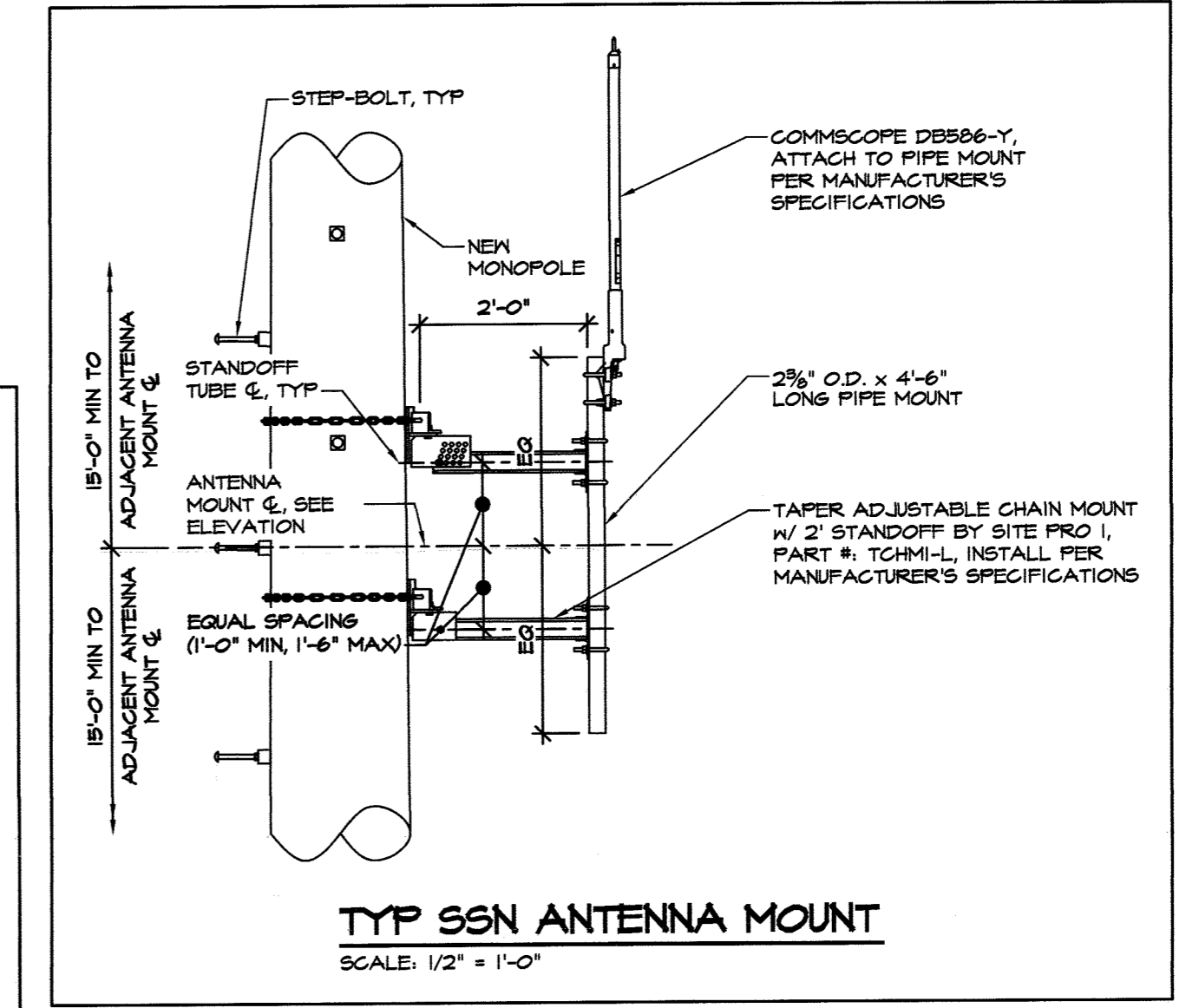
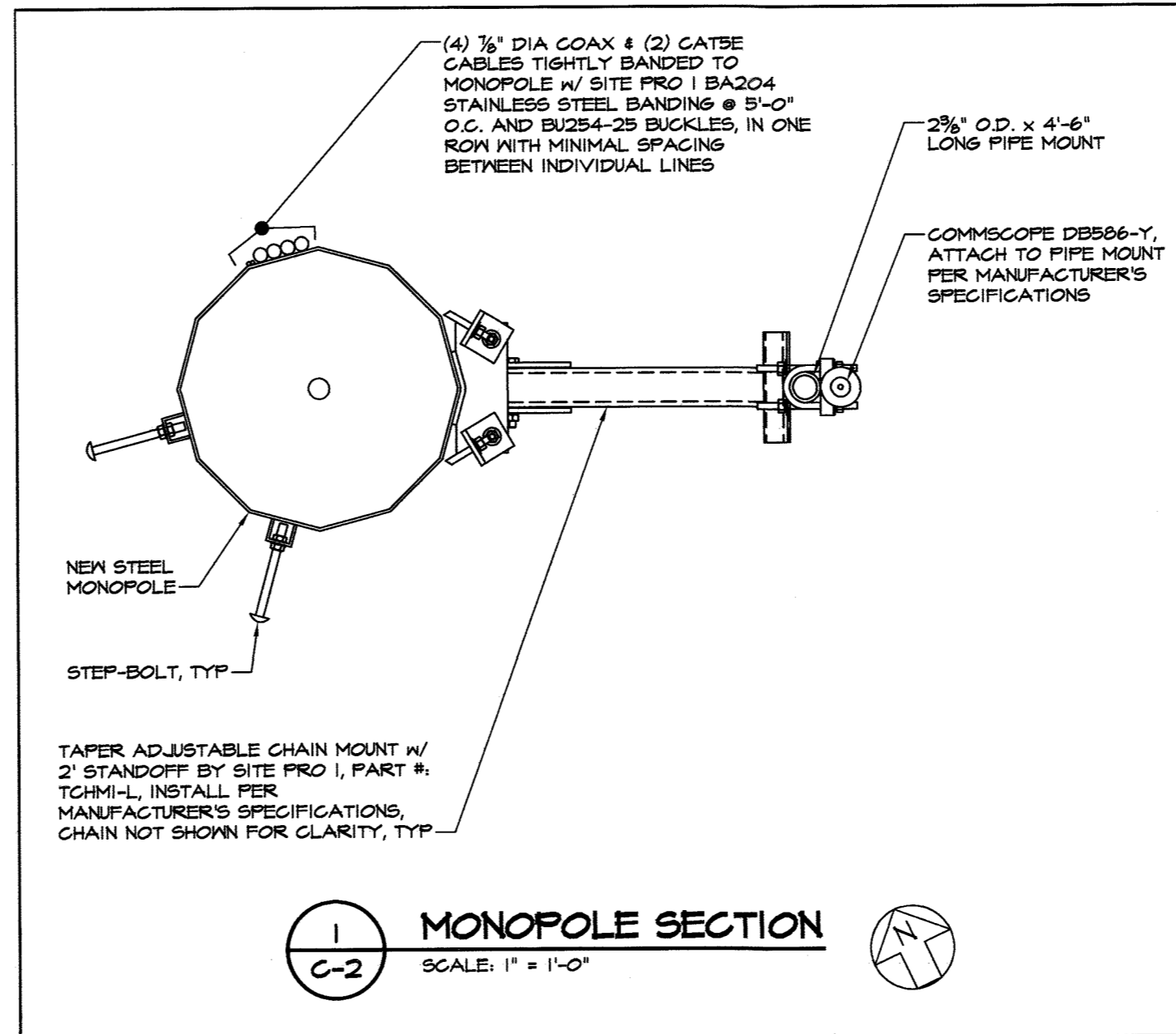


**VALMONT STEEL POLE SPECIFICATIONS**  
CLASS HB, SNOT  
TOTAL POLE LENGTH: 45 FT  
BASE DIA @ BEARING PLATE: 28.58 IN  
ESTIMATED POLE WEIGHT: 5,860 LBS

**VALMONT STEEL PLATE THICKNESS SPECIFICATIONS**  
CLASS HB, SNOT  
TOP SECTION: 0.219 IN  
BOTTOM SECTION: 0.250 IN

**STRUCTURAL NOTE:**  
PASSING STRUCTURAL ANALYSIS OF THE PROPOSED VALMONT STEEL POLE WITH THE PROPOSED LOADING WAS PERFORMED BY MORRIS & RITCHIE ASSOCIATES, INC., JOB # 16208197, REVISION 2, DATED JANUARY 17, 2020.

**NOTE:**  
THE CONDUIT 90 DEGREE ELBOWS MUST BE LONG SWEEP ELBOWS WITH A MINIMUM BEND RADIUS OF 25 INCHES.



APPROVED BY HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 3.30.20  
 DATE  
 4/1/2020  
 DATE  
 4/3/2020  
 DATE



**DEVELOPER/APPLICANT**  
BALTIMORE GAS & ELECTRIC COMPANY  
1088 NORTH FRONT STREET  
BALTIMORE, MD 21202  
PHONE NUMBER: 410-470-8572  
FAX: 410-470-5899

**PROPERTY OWNER**  
BALTIMORE GAS & ELECTRIC COMPANY  
ATTN: TAX ACCOUNTING  
P.O. BOX 1475  
BALTIMORE, MD 21203

**APPLICANT ATTORNEY**  
BANKERS TRUST CO TRUSTEE  
C/O BALTIMORE GAS & ELECTRIC CO  
P.O. BOX 1475  
BALTIMORE, MARYLAND 21203-1475

**NOTE: THIS IS AN ADDED SHEET**

**MIRA**

**MORRIS & RITCHIE ASSOCIATES, INC.**  
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS  
14280 PARK CENTER DRIVE  
LAUREL, MD 20707  
(410) 792-9792 (301) 776-1690  
FAX: (410) 792-7395  
MRASTA.COM  
Copyright 2020 Morris & Ritchie Associates, Inc.

**BETHANY SUBSTATION - BGE**  
SDP-70-14  
ESSENTIAL TELECOMMUNICATION STRUCTURE

**CONSTRUCTION DETAILS**

STATE ROUTE 144, WEST FRIENDSHIP 21794  
PARCEL NUMBER 1015, ZONE B-2 (BUSINESS, GENERAL) DISTRICT  
TAX MAP 24, ELECTION DISTRICT 2  
WEST FRIENDSHIP, MD 21794 - HOWARD COUNTY

DATE	REVISIONS	JOB NO.:
2-10-2020	REVISED SITE DEVELOPMENT PLAN FOR TELECOM STRUCTURE AND NEW SHEET 5 AND 6 MONOPOLE DETAILS	16208197
		SCALE: SEE DETAIL
		DATE: 3-9-2020
		DRAWN BY: MAM
		DESIGN BY: MAM
		REVIEW BY: TM
		SHEET: 3 OF 4

MD PROFESSIONAL CERTIFICATION: 3-9-20

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.  
 THOMAS C. NEUGEBAUER  
 LICENSE NO. 29203  
 EXPIRATION DATE: 06/16/2021

PROJ: 16208197 Bethany Substation\Plan\SDP-70-14\Plan\_Sets\Media - February 2020\16208197\_Detail\_Sheet\_3.dwg, 3/17/2020 2:09:29 PM, mitchell, Copyright 2020 Morris & Ritchie Associates, Inc.

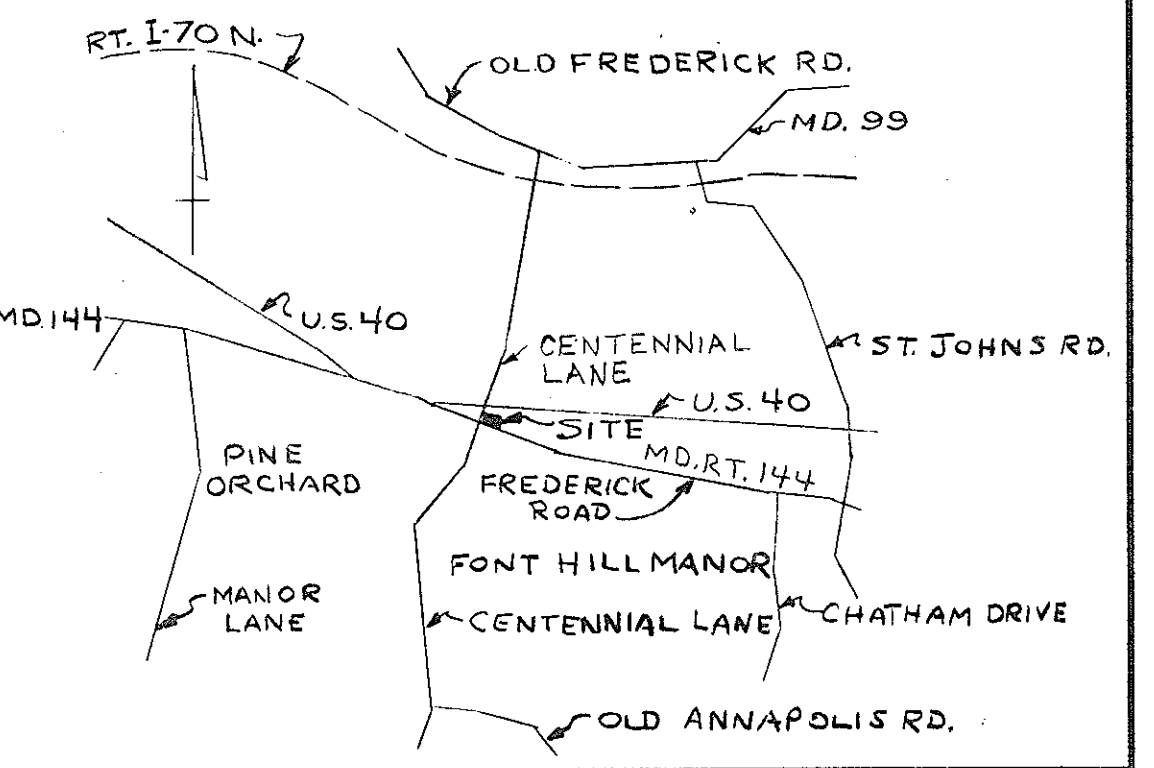
- TYPICAL TREE PLANTING AND STAKING NOTES**  
(FOR DETAIL SEE THIS PAGE)
1. CONSULT INTERNATIONAL SOCIETY OF ARBORICULTURE GUIDELINES FOR FURTHER DETAILS OF PLANTING SPECIFICATIONS, OR CONSULT WITH A QUALIFIED PROFESSIONAL.
  2. EACH TREE SHALL BE PLANTED SUCH THAT THE TRUNK PLACES TO VISUAL AT THE TOP OF THE ROOT BALL. STAKES SHALL BE REMOVED NO LATER THAN THE END OF THE FIRST GROWING SEASON AFTER PLANTING.
  3. PLACE UPRIGHT STAKES PARALLEL TO WALKS & BUILDINGS.
  4. KEEP MULCH 1" FROM TRUNK.
  5. TREES ARE NOT TO BE PLANTED OVER PRIVATE SEWAGE EASEMENT.

P699 LOT 2  
STANLEY L. HARMAN  
DEED DATED 5-13-68  
LIBER CMP NO. 487 FOLIO 581  
TAX A/C # 2-91-HO 418000  
LOT 2 BK G SEC 4  
FONT HILL MANOR

F699 LOT 1  
EARL H. RODEN & WIFE  
DEED DATED 10-4-67  
LIBER W.H.H. NO. 476 FOLIO 787  
TAX A/C # 2-91-RO 674500  
LOT 1 BK G SEC 4  
FONT HILL MANOR

P65  
JOSEPH W. GERMAN  
DEED DATED 9-21-49  
LIBER M.W.B. NO. 212 FOLIO 531  
TAX A/C # 2-91-60380000

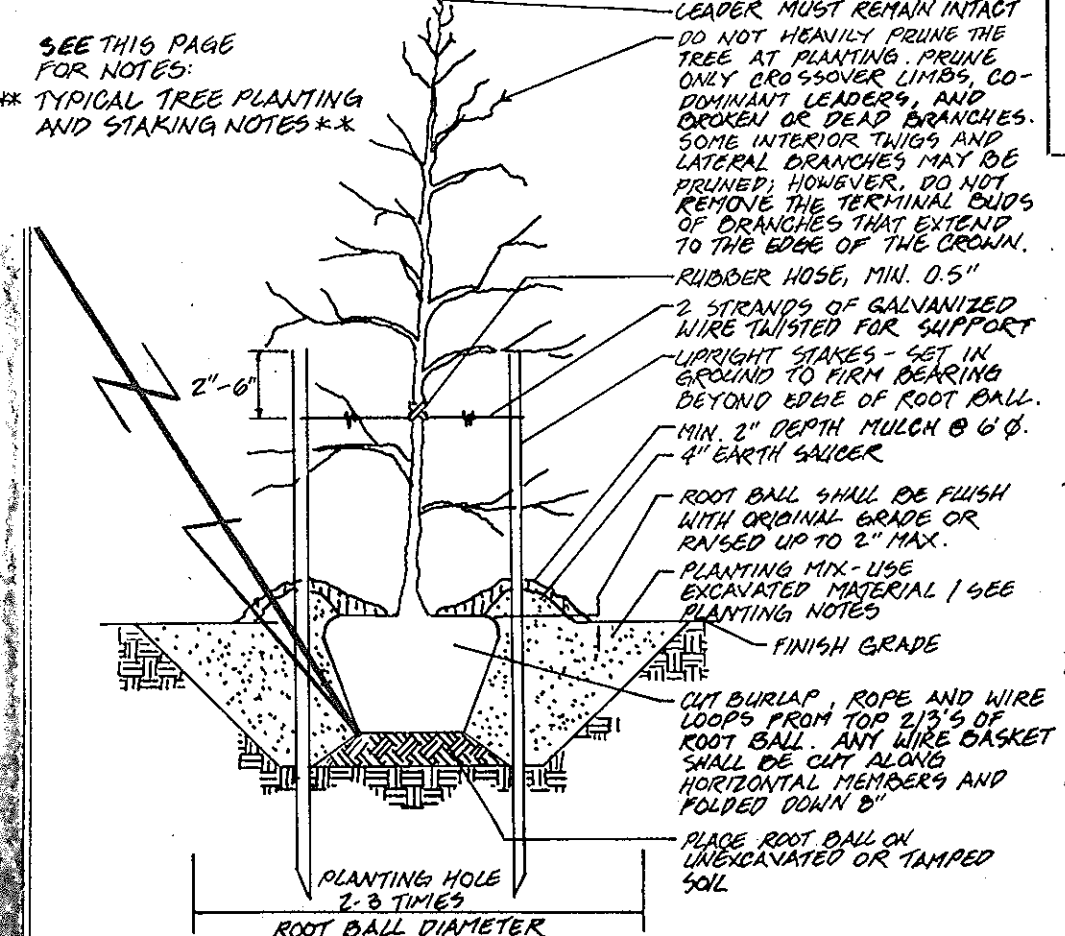
SPECIES	SIZE	NOTE	QTY	KEY
AMELANCHIER ARBOREA SILVER BERRY	1 1/2"-2" CAL.	B&D 15' SPACING	5	AA
MALUS 'HARVEST GOLD' HARVEST GOLD CRABAPPLE	1 1/2"-2" CAL.	B&D 15' SPACING	4	MHG
1 1/2" x 'NELLIE K. STEVENS' 'NELLIE STEVENS' HOLLY	4'-5'	B&D 5' SPACING	15	XIL
JUNIPERUS CHINENSIS 'HETZU' DOLYMINARIUS	4'-5'	B&D 5' SPACING	15	JO
THUJA OCCIDENTALIS 'TECHNY' TECHNY ARBORVITAE	4'-5'	B&D 5' SPACING	24	TO
THUJA OCCIDENTALIS 'EMERALD 'EMERALD GREEN' ARBORVITAE	4'-5'	B&D 4.5' SPACING	15	TOE



VICINITY PLAN  
SCALE 1"=1 MILE

NOTES

1. DOTTED CONTOUR LINES INDICATE EXISTING TOP OF GRADE OR ROAD AS INDICATED ON PLAT OF PROPERTY BY DOLLENBERG BROTHERS, SURVEYORS AND CIVIL ENGINEERS, DATED OCTOBER 15, 1968. FULL CONTOUR LINES INDICATE NEW TOP OF GRADE OR ROAD FOR THIS INSTALLATION.
2. THE MERIDIAN REFERENCE IS NOT KNOWN.
3. BETHANY SUBSTATION IS AN UNATTENDED STATION AND NO PERMANENT EMPLOYEE WILL BE LOCATED ON THE PREMISES.
4. NO WATER SERVICE, SANITARY SEWERAGE SERVICE, SUBSURFACE STORM DRAINING, OR OTHER PLUMBING WILL BE REQUIRED OR INSTALLED.
5. FENCE TO BE CHAIN LINK CONSTRUCTION WITH AN OVERALL HEIGHT OF 8'-0" CONSISTING OF 7'-0" FABRIC WITH THREE (3) STRANDS OF BARBED WIRE TURNED IN. SPECIAL FENCE TO BE HABITANT AMERICANA PALING NO. 2800, DESIGN NO. 2808, 8'-0" HIGH. PALING TO BE SECURELY FASTENED TO OUTER SIDE OF CHAIN LINK FENCE.
6. LANDSCAPING AND SCREENING TO COMPLY WITH HOWARD COUNTY BOARD OF ZONING APPEALS RESOLUTION ON CASE #588.C.
7. SEDIMENT CONTROL: AREA WITHIN FENCE SHOWN TO BE COVERED WITH 4 INCHES OF CHIP STONE OVER NEW COMPACTED FINISHED GRADE AS SOON AS POSSIBLE EXCEPT WHERE PAVED. ALL OTHER AREAS DISTURBED BY GRADING WILL BE STABILIZED BY SEEDING AND MULCHING AS SOON AS AREAS ARE AVAILABLE FOR GROUNDS PREPARATION. APPROXIMATELY 2 INCHES OF TOP SOIL WILL BE APPLIED AND SEEDED WITH 70% KENTUCKY FESCUE, 20% DOMESTIC RYE AND 10% CREEPING RED FESCUE AT THE RATE OF 6 POUNDS PER 1000 SQ. FT. WITH RYE GRAIN APPLIED AS NEEDED FOR TEMPORARY COVER, AND FERTILIZED WITH 25 POUNDS OF 10-10-10 PER 1000 SQ. FT. LIME AS NEEDED BY TEST. SLOPES AND DIVERSIONS WILL BE STABILIZED WITH SUDLOW "SOIL SAVER" JUTE NETTING SECURED WITH 6 INCH WIRE STAPLES. OTHER AREAS WILL BE MULCHED WITH WHEAT STRAW AT 1 1/2 TO 2 TONS PER ACRE AND SECURED. REMOVE ONLY TREES AND VEGETATION NECESSARY FOR CONSTRUCTION. ALL TREATMENT FOR SEDIMENT CONTROL TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. THE SUBSTATION LIES WITHIN THE PATUXENT WATERSHED.
8. ROADWAY: PRIVATE ROADWAY AND PARKING AND TURN AREA TO BE PAVED - 8" CRUSHER RUN STONE, CR467, BASE WITH 2" OF P-2 BITUMINOUS CONCRETE TOPPED BY 1" OF PC1-61 BITUMINOUS CONCRETE. ENTRANCE DRIVEWAY SHALL BE IN ACCORDANCE WITH HOWARD COUNTY ROAD CODE AND STANDARD SPECIFICATIONS.
9. SUBSTATION OWNED, OPERATED AND CONSTRUCTED BY THE BALTIMORE GAS AND ELECTRIC COMPANY, BALTIMORE, MARYLAND 21203.
10. ANY ADDITIONAL WORK REQUIRED FOR SEDIMENTATION CONTROL AFTER CONSTRUCTION HAS STARTED WILL BE DONE AT THE REQUEST OF THE HOWARD SOIL CONSERVATION DISTRICT.



TYPICAL TREE PLANTING AND STAKING  
ALL TREES UP TO 3" GAUGE  
NOT TO SCALE

APPROVED  
DIVISION OF LAND DEVELOPMENT  
AND TRANSPORTATION PLANNING  
HOWARD COUNTY, MARYLAND  
DATE 1/22/70

ZONED B-2  
P768  
VIOLA E. STRUM  
DEED DATED 8-13-64  
LIBER W.H.H. NO. 423 FOLIO 129  
TAX A/C # 2-91-52110000

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT  
COUNTY HEALTH OFFICER DATE 1/26/73

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
PLANNING DIRECTOR DATE 1-31-73

CHIEF, DIVISION OF LAND DEV. DATE 1/21/73

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, AND STORM DRAINAGE SYS. & ROADS  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
DIRECTOR DATE 1/25/73

CHIEF, BUREAU OF HIGHWAYS DATE 1/25/73

REV.	DATE	DESCRIPTION	APPROVAL
A	11-10-69	REV'D PER HOWARD COUNTY OFFICE OF PLANNING & ZONING COMMENTS.	ll
B	7-3-72	ADDED LANDSCAPE UTILITY EASEMENT, RELOCATED BLDG RESTRICT. LINE	
C	1-4-08	INSTALL 1-25MVA 34.5-13KV TRANSFORMER WITH 2-13KV FDR P65 & 2-13KV FDRS #1212 & #1650. RELOCATE 13KV FDR #1216. REMOVE MODULAR TRANSFORMER. REVISE LANDSCAPING.	

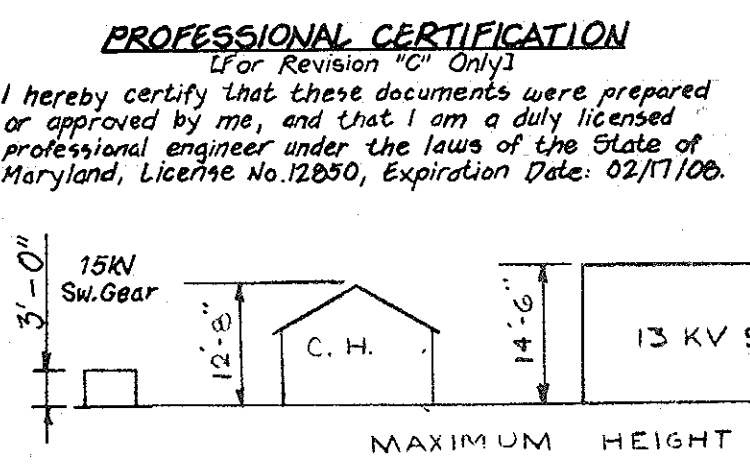
ENGINEERING	DESIGNED	DRAWN	CHECKED	APPROVED	DATE	REV.
CIVIL						
MECH.						
ELEC.						
CHIEF ENG.						
MANAGER						
DESIGN & DRAWING						
BETHANY						
BALTIMORE GAS AND ELECTRIC COMPANY						
ELECTRIC ENGINEERING DEPARTMENT						
REPROD. FROM DWG.	66-602-D	SCALE 1"=20'				
DATED	6-20-69	DWG. 66-609-D				
		NO.				

2007: REMOVE MOD SUBSTATION EQUIP. & PAD MOUNT SWGR. ABANDON MODULAR FOUNDATIONS & OIL RETENTION FACILITY IN PLACE.

P70  
WILLIAM S. CORNELL & WIFE  
DEED DATED 8-13-67  
LIBER W.H.H. NO. 475 FOLIO 296  
TAX A/C # 2-91-C1495100

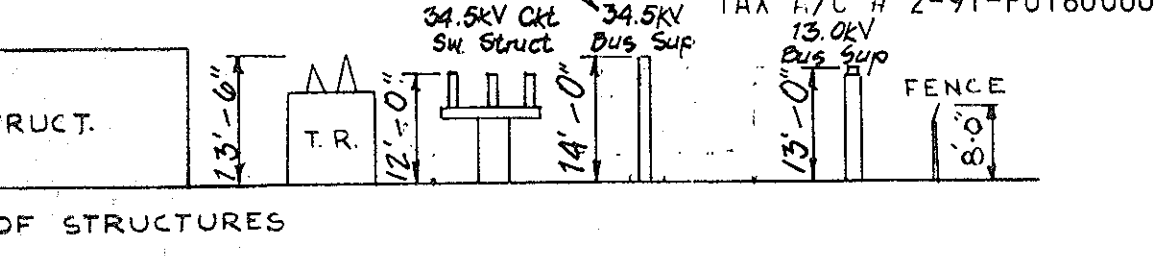
This plan is subject to BA Case No. 07-025C. On November 20, 2007, Howard County Board of Appeals hearing examiner ordered to grant a Conditional Use for a Public Utility Use (Additional Electrical Equipment) in a B-2 (Business - General) Zoning District subject to:  
1. Conditional use shall apply only to the uses and structures as described in the petition and submitted Conditional Use Plan to revise and augment existing landscape buffers with new trees and shrubs and to install and operate the anticipated equipment, and not to any other activities, uses, structures or additions on the site.  
2. The Petitioner is permitted to make the following changes to the Conditional Use without further Hearing Authority approval: the addition, relocation, or modification of foundations or equipment, or additions to existing buildings, within the existing fence line.

PROFESSIONAL CERTIFICATION  
(For Revision "C" Only)  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 12650, Expiration Date: 02/17/08.



BALTIMORE 10 1281 HERCULENE

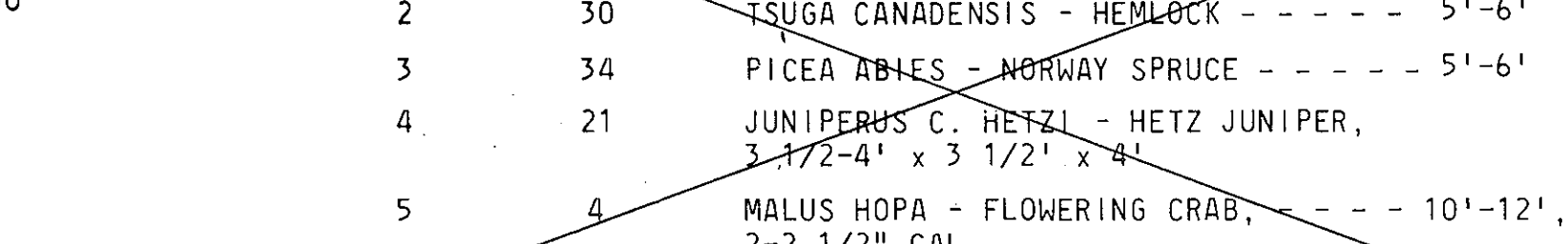
2007: SIMILAR EQUIPMENT & STRUCTURES CURRENTLY EXISTS WITHIN SUBSTATION FENCE LINE



PLANTING KEY

SYMBOL	NUMBER REQUIRED	NAME	SIZE
1	10	PINUS STROBUS - WHITE PINE	8'-10'
2	30	TSUGA CANADENSIS - HEMLOCK	5'-6'
3	34	PICEA ABIES - NORWAY SPRUCE	5'-6'
4	21	JUNIPERUS C. HETZU - HETZ JUNIPER, 3 1/2"-4" x 3 1/2" x 4"	
5	4	MALUS HOPA - FLOWERING CRAB, 2-2 1/2" CAL.	10'-12'
6	9	FORSYTHIA INTERMEDIA - FORSYTHIA	5'-6'

ZONED B-2  
PARGAS, INC.  
P66  
PARLETT GAS CO.  
DEED DATED 3-24-47  
LIBER M.W.B. NO. 197 FOLIO 159  
TAX A/C # 2-91-PO1600000



HOWARD COUNTY MARYLAND  
FEE SIMPLE R/W  
LIBER 2233, FOLIO 12

CONSTRUCTION NOTES

CODES

- A. ANSI/AIA-222-4-2017 'STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS', AND ALL SUBSEQUENT SUPPLEMENTS
B. INTERNATIONAL BUILDING CODE (IBC-2018)
C. IN ADDITION, ALL CONSTRUCTION SHALL CONFORM WITH THE GOVERNING LOCAL BUILDING CODE

DESIGN LOADS

- A. THE EMBEDDED STEEL MONOPOLE HAS BEEN DESIGNED TO SUPPORT THE APPURTENANCES LISTED IN THE MONOPOLE ANALYSIS REPORT BY MORRIS & RITCHE ASSOCIATES, JOB NO. 16200141, REV 2, DATED JANUARY 17, 2020.
B. WIND LOAD DESIGN DATA
ULTIMATE WIND SPEED (NO ICE): Vult = 120 MPH
BASIC WIND SPEED (WITH ICE): Vb = 40 MPH
DESIGN RADIAL ICE THICKNESS: 1" (ICE THICKNESS INCREASES WITH HEIGHT)
RISK CATEGORY: C
EXPOSURE CATEGORY: C
TOPOGRAPHIC CATEGORY: I
C. EARTHQUAKE LOAD DESIGN DATA
Ss: 0.15g
Si: 0.24g
Ca: 0.25g
SDC: B
WIND LOADS GOVERN
D. THE CONTRACTOR SHALL PROVIDE TEMPORARY BRACINGS AS REQUIRED DURING ERECTION AND CONSTRUCTION. DESIGN OF TEMPORARY BRACINGS IS THE RESPONSIBILITY OF THE CONTRACTOR. SEE CONTROLLED LOW-STRENGTH MATERIAL SECTION OF NOTES FOR ADDITIONAL INFORMATION.

MISCELLANEOUS

- A. THE CONTRACTOR SHALL INSTALL THE EMBEDDED STEEL MONOPOLE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS, IN ADDITION TO THE SPECIFICATIONS ON THESE DRAWINGS.
B. THE CONTRACTOR SHALL LOCATE ALL UTILITIES IN THE AREA OF CONSTRUCTION AND PREVENT DAMAGE TO THEM. SHOULD DAMAGE OCCUR TO ANY UTILITIES, THE CONTRACTOR IS REQUIRED TO REPAIR THE DAMAGE TO THE SATISFACTION OF THE OWNER AT HIS OWN EXPENSE.
C. IN CASES OF CONFLICT BETWEEN THE DRAWINGS AND/OR SPECIFICATIONS OR EXISTING CONDITIONS, CONTRACTOR SHALL NOTIFY THE DESIGN PROFESSIONALS AND OBTAIN CLARIFICATION PRIOR TO BIDDING AND PROCEEDING WITH WORK.
D. THE CONTRACTOR SHALL NOT SUBMIT REPRODUCTIONS OF THE STRUCTURAL CONTRACT DOCUMENTS AS SHOP DRAWINGS.
E. SCALES SHOWN ON THE STRUCTURAL CONTRACT DRAWINGS ARE FOR GENERAL INFORMATION ONLY. DIMENSIONAL INFORMATION SHALL NOT BE OBTAINED BY SCALING THE DRAWINGS.
F. APPLY DETAILS, SECTIONS AND NOTES ON THE DRAWINGS WHERE CONDITIONS ARE SIMILAR TO THOSE INDICATED BY DETAIL, DETAIL TITLE OR NOTE.
G. PROVIDE SHORINGS AND PROTECTION FOR EXCAVATION AS NECESSARY TO PREVENT CAVING AND COMPLY WITH ALL APPLICABLE OSHA RULES AND REGULATIONS.
H. SHOP DRAWINGS FOR ALL STRUCTURAL ELEMENTS SHOWN ON THE CONTRACT DOCUMENTS MUST BE SUBMITTED BY THE CONTRACTOR OR OWNER FOR REVIEW BY THE ENGINEER. IF THE CONTRACTOR OR OWNER FAILS TO SUBMIT THE SHOP DRAWINGS, THE ENGINEER WILL NOT BE RESPONSIBLE FOR STRUCTURAL CERTIFICATION AND DESIGN OF THE PROJECT. THE SHOP DRAWINGS SHALL INDICATE ANY DEVIATIONS OR OMISSIONS FROM THE CONTRACT DOCUMENTS. THE GENERAL CONTRACTOR SHALL REVIEW ALL SHOP DRAWINGS PRIOR TO SUBMISSION AND MAKE ALL CORRECTIONS DEEMED NECESSARY.

EMBEDDED STEEL MONOPOLE

- A. STEEL MONOPOLE SPECIFICATIONS:
MANUFACTURER: VALMONT
DESIGNATION: CLASS H9, S907 (12-SIDED)
POLE TYPE: TWO-PIECE WITH SLIP JOINTS
TOTAL POLE LENGTH: SEE DRAWINGS
TOP SECTION THICKNESS: 0.214 IN
BOTTOM SECTION THICKNESS: 0.250 IN
BASE DIA @ BEARING PLATE: 20.35 IN
APPROXIMATE POLE WEIGHT: 5060 LBS
EMBEDMENT LENGTH: SEE DRAWINGS
B. MISCELLANEOUS SPECIFICATIONS:
STEEL FINISH: GALVANIZED
CORROSION: 1'-6" ABOVE GRADE TO BOTTOM OF POLE
CLIMBING HARDWARE: STEP-BOLTS 10' ABOVE GRADE TO TOP OF POLE

STRUCTURAL AND MISCELLANEOUS STEEL

- A. ALL STEEL CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE AISC STEEL CONSTRUCTION MANUAL 'SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS' (ANSI/AISC 360) AND THE AISC 'CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES'.
B. ALL PIPE SHALL CONFORM TO ASTM A53, GRADE B (Fy = 35 KSI).
C. ALL U-BOLTS SHALL CONFORM TO ASTM A307 (Fu = 60 KSI).
D. ALL NUTS SHALL CONFORM TO ASTM A563.
E. ALL WASHERS SHALL CONFORM TO ASTM F436.
F. FIELD WELDING IS NOT PERMITTED.
G. THE CONTRACTOR SHALL NOT SPLICE OR CUT OPENINGS IN STEEL MEMBERS NOT SHOWN ON CONTRACT DRAWINGS WITHOUT THE PERMISSION OF THE STRUCTURAL ENGINEER.
H. ALL STEEL MEMBERS, FABRICATIONS AND ASSEMBLIES SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123 AFTER FABRICATION. ALL BOLTS, WASHERS & NUTS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM F2324.
I. DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
J. AN INDEPENDENT INSPECTION AGENCY SHALL INSPECT ALL STRUCTURAL STEEL AND VERIFY THAT IT CONFORMS TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. FIELD INSPECTION REPORTS SHALL BE SUBMITTED TO THE ENGINEER WITHIN 5 DAYS OF THE INSPECTION. THE CONTRACTOR SHALL NOTIFY THE INSPECTION AGENCY OF ALL PHASES OF STEEL CONSTRUCTION AND WELDING.

STRUCTURAL BACKFILL

CRUSHED STONE

- A. STONE SHALL BE 1" DIAMETER OR SMALLER MEETING THE GRADATION REQUIREMENTS OF SIZE NO. 57 PER COARSE AGGREGATE OF ASTM C895.
B. STONE SHALL BE DEPOSITED IN 6 INCH MAXIMUM LOOSE LIFTS AND COMPACTED TO THE SPECIFIED FINISHED GRADE.

CONTROLLED LOW-STRENGTH MATERIAL (CLSM)

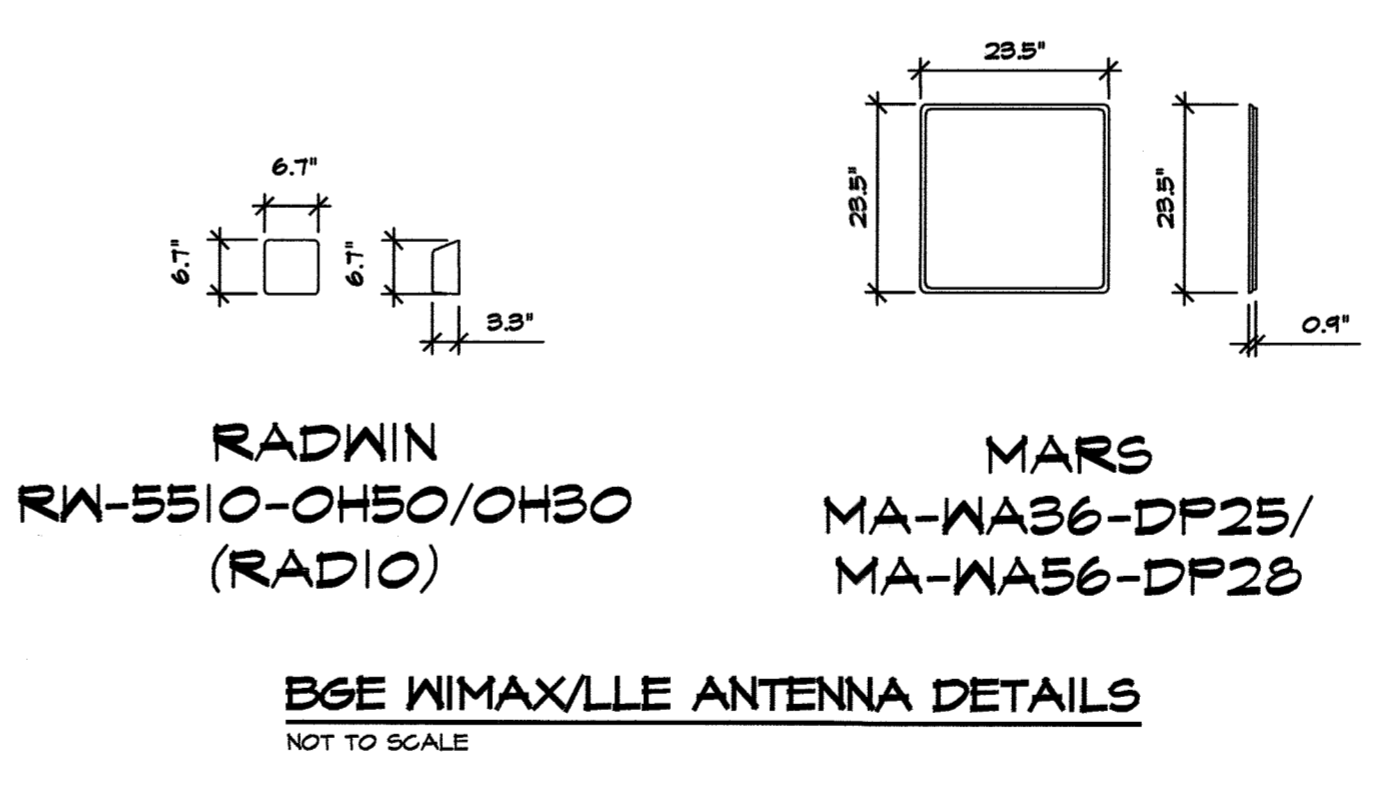
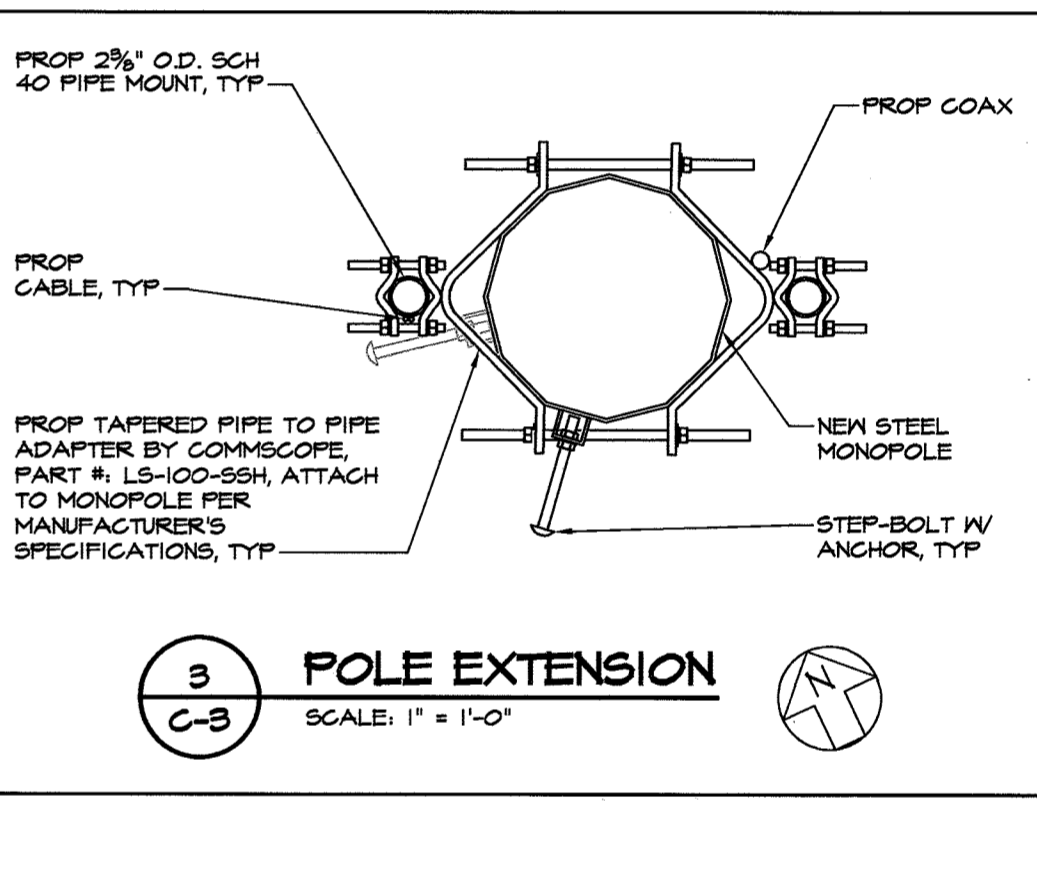
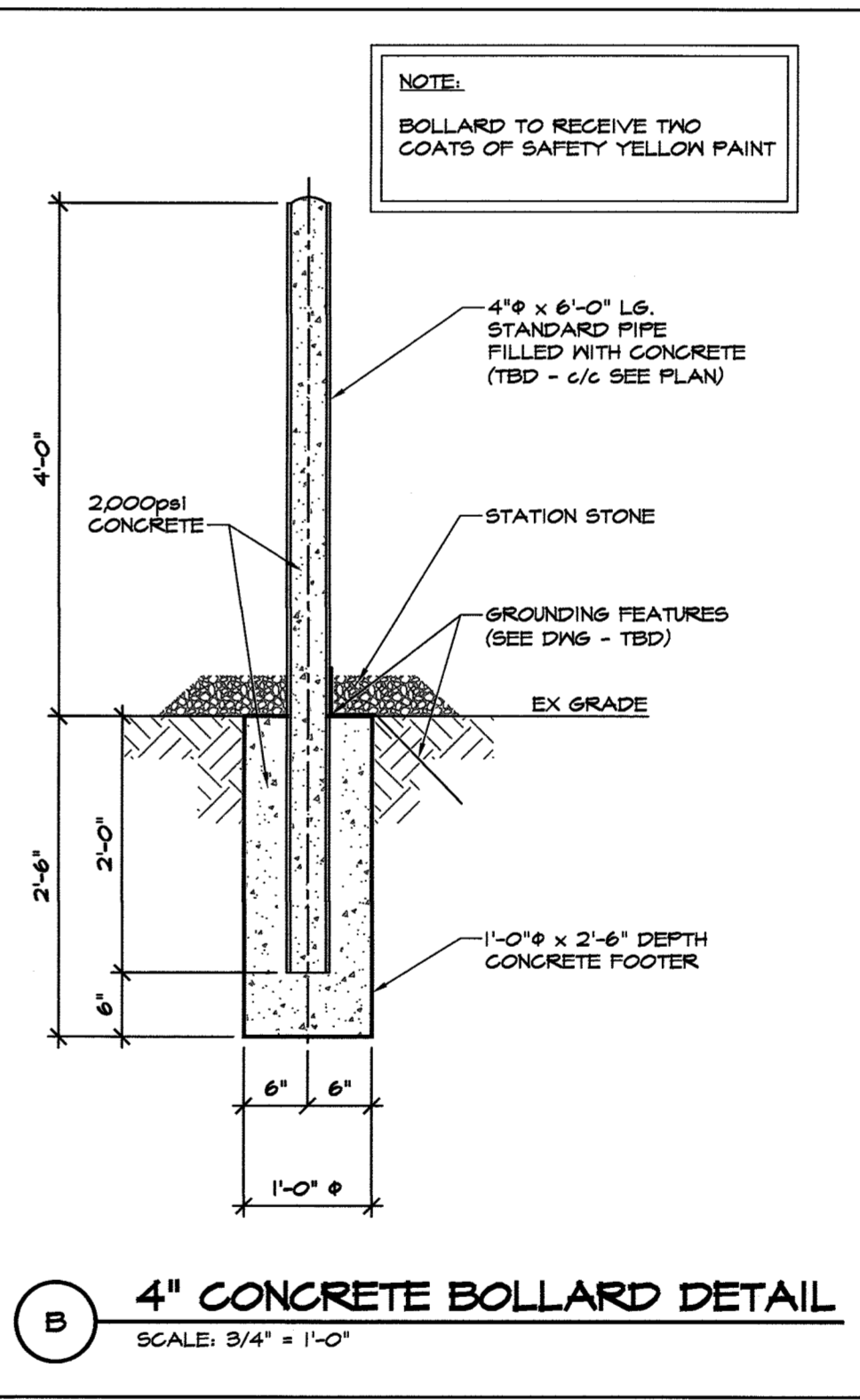
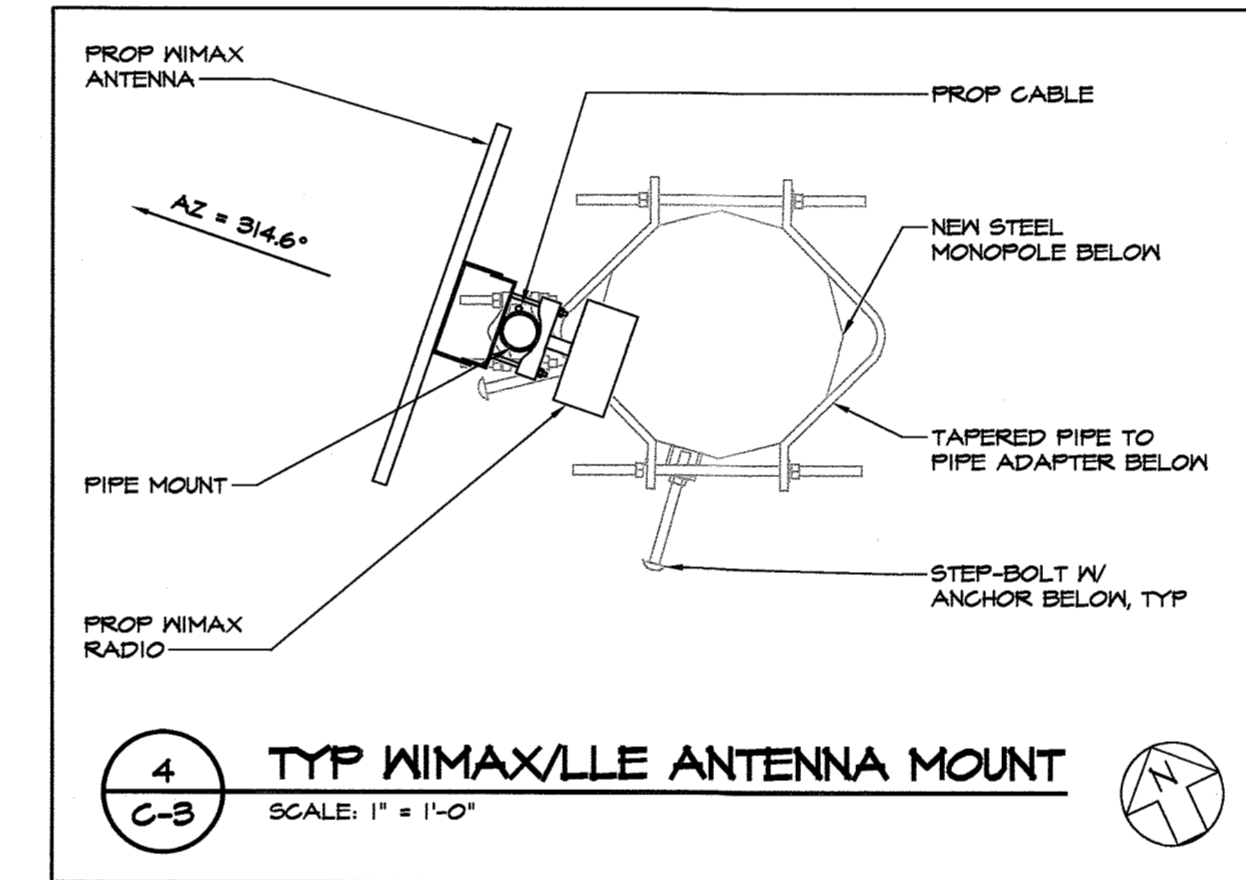
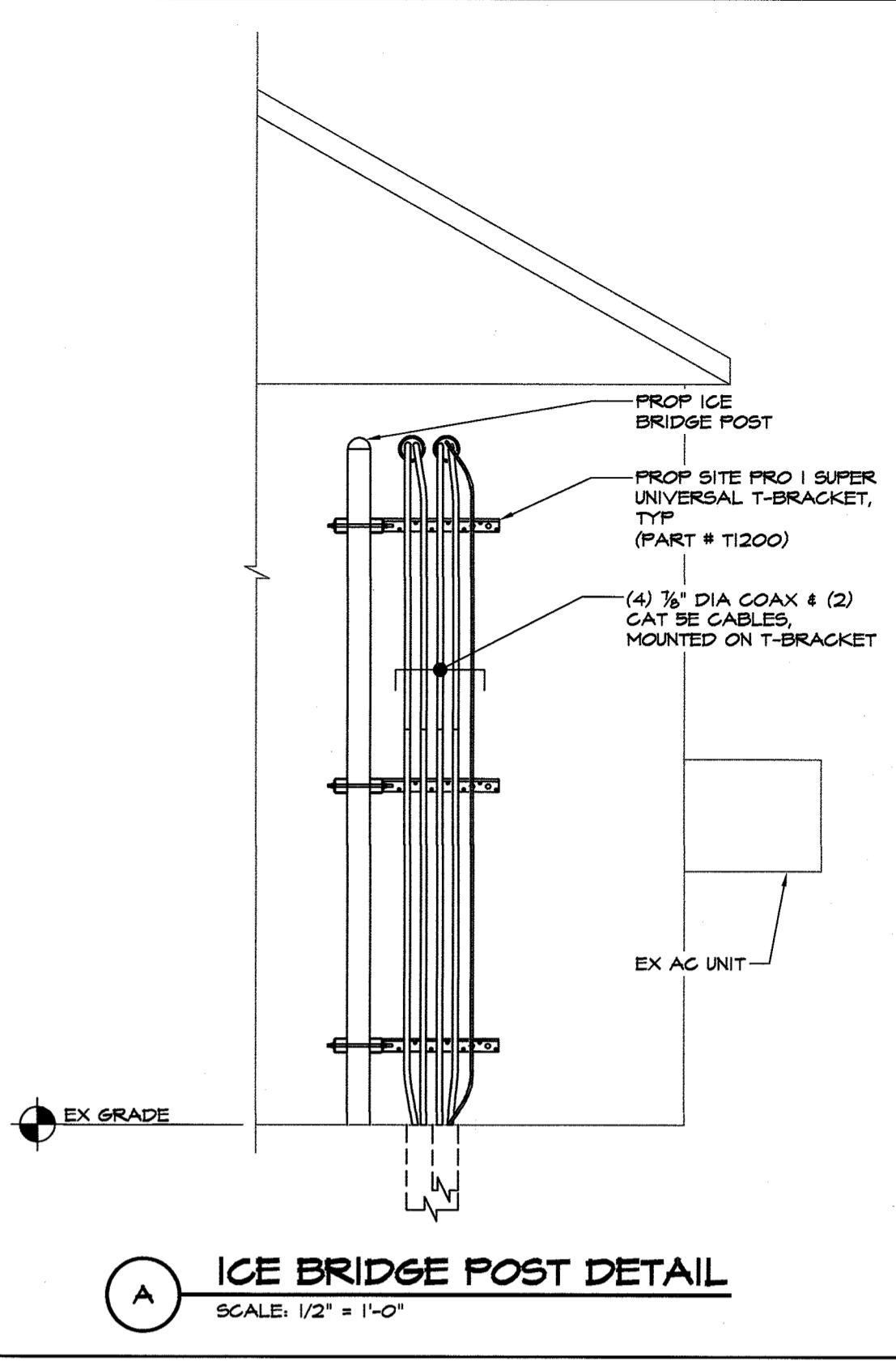
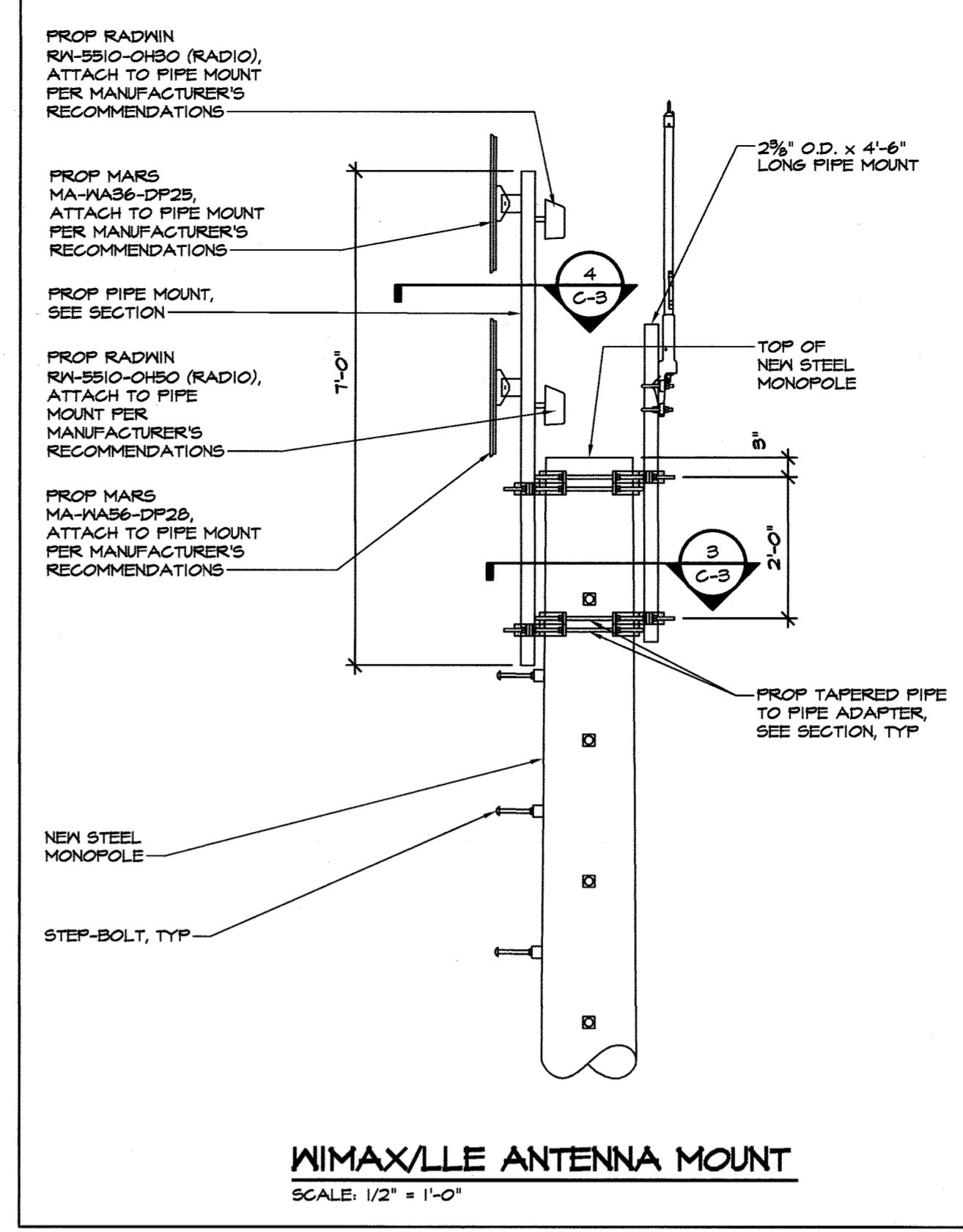
- A. ALL CLSM CONSTRUCTION SHALL CONFORM TO THE LATEST STANDARD FOR CONTROLLED LOW-STRENGTH MATERIAL (ACI 224).
B. CLSM MATERIAL SPECIFICATIONS:
1. AGGREGATE SHALL CONFORM TO ASTM C895. COARSE AGGREGATE SHALL CONSIST OF A WELL-GRADED MIXTURE OF CRUSHED ROCK OR SAND WITH A MAXIMUM SIZE AGGREGATE OF 3/4". 100% SHALL PASS THE 1/2" SIEVE. NOT MORE THAN 30% SHALL BE RETAINED BY THE 3/8" SIEVE AND NOT MORE THAN 12% SHALL PASS THE NUMBER 200 SIEVE. ALL MATERIAL SHALL BE FREE FROM ORGANIC MATTER AND NOT CONTAIN MORE ALKALI, SULFATES, OR SALTS THAN THE NATIVE MATERIAL AT THE SITE.
2. THE ENTRAINED AIR CONTENT SHALL BE A MINIMUM OF 8% AND A MAXIMUM OF 20%.
3. AIR ENTRAINING ADMIXTURE AND/OR WATER REDUCING AGENT MAY BE ADDED TO IMPROVE THE WORKABILITY AND SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM C896 AND ASTM C494, RESPECTIVELY.
4. WATER SHALL BE POTABLE, CLEAN AND FREE FROM OBJECTIONABLE QUANTITY OF SILTY ORGANIC MATTER, ALKALI, SALTS, AND OTHER IMPURITIES.
C. CLSM PERFORMANCE SPECIFICATIONS:
1. THE MINIMUM 28 DAY COMPRESSIVE STRENGTH SHALL BE 500 PSI.
2. THE MINIMUM UNCONFINED COMPRESSIVE STRENGTH AT 6 HOURS SHALL BE 90 PSI. THE STEEL MONOPOLE SHALL BE TEMPORARILY SUPPORTED DURING THE CLSM 6 HOURS SETTING PERIOD TO ALLOW THE CLSM TO PROPERLY CURE.
3. THE MINIMUM FLOW (SLUMP) SHALL BE 6 INCHES WHEN TESTED IN ACCORDANCE WITH ASTM D6103.
D. ALL CLSM MIX DESIGNS, INCLUDING CEMENT CONTENT, WATER CEMENT RATIO, FINE AND COARSE AGGREGATE CONTENT AND ALL ADMIXTURES, SHALL BE REVIEWED BY ENGINEER PRIOR TO PLACING FIRST CLSM.
E. ALL CLSM SHALL BE SAMPLED AND TESTED BY THE TESTING AGENCY. THE CONTRACTOR SHALL NOTIFY THE TESTING AGENCY 48 HOURS PRIOR TO THE PLACING OF ANY CLSM. TESTING SHALL BE IN ACCORDANCE WITH ASTM C44.
F. THE CLSM SHALL NOT BE REQUIRED TO SUPPORT WIND LOADINGS FOR A MINIMUM OF 6 HOURS AND ALL TEMPORARY BRACINGS REQUIRED TO SUPPORT THE MONOPOLE STRUCTURE DURING CONSTRUCTION SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR. SHOP DRAWINGS, SIGNED AND SEALED BY A REGISTERED ENGINEER IN THE STATE OF MARYLAND, SHALL BE SUBMITTED FOR REVIEW. SHOP DRAWINGS SHALL INDICATE THE TYPE, EXTENT, SIZE, AND LOCATION OF ALL TEMPORARY BRACINGS, AS WELL AS THE SEQUENCE OF CONSTRUCTION.

SITE NOTES

- 1. ACCORDING TO SECTION 12B.0.E.3. OF THE HOWARD COUNTY ZONING REGULATIONS, A COMMUNICATION TOWER THAT IS NO LONGER USED SHALL BE REMOVED FROM THE SITE WITHIN ONE-YEAR OF THE DATE THAT THE USE CEASES.
2. THE STRUCTURE WILL NOT SUPPORT LIGHTS OR SIGNS UNLESS REQUIRED FOR AIRCRAFT WARNING OR OTHER SAFETY RECORDS BY THE FEDERAL COMMUNICATIONS COMMISSION OR THE FEDERAL AVIATION ADMINISTRATION.
3. COMMUNICATION TOWERS SHALL BE GRAY OR A SIMILAR COLOR THAT MINIMIZES VISIBILITY, UNLESS A DIFFERENT COLOR IS REQUIRED BY THE FEDERAL COMMUNICATIONS COMMISSION OR THE FEDERAL AVIATION ADMINISTRATION.
4. NO WATER OR SANITARY UTILITIES ARE REQUIRED FOR THE OPERATION OF THIS FACILITY.
5. STORMWATER MANAGEMENT NOTE: NO STORMWATER MANAGEMENT IS REQUIRED FOR THIS SITE.
6. TOTAL DISTURBED AREA = (1/4) \* (4.5 FT^2) + (3) \* ((1/4) \* (1.5 FT^2)) + (3) \* ((1/4) \* (1.0 FT^2)) = ~24 SF
7. TOTAL DISTURBED VOLUME = (13.5 FT \* (1/4) \* (4.5 FT^2)) + (3) \* (13.5 FT \* (1/4) \* (1.5 FT^2)) + (3) \* (2.5 FT \* (1/4) \* (1.0 FT^2)) = ~21 CF = ~10 CY
8. THE PROPOSED FACILITIES WILL CONSIST OF FOUR (4) OMNI-DIRECTIONAL ANTENNAS AND (2) PANEL ANTENNAS MOUNTED ON A NEW 80'-0" MONOPOLE FOR THE RECEPTION OF BALTIMORE GAS & ELECTRIC TELECOMMUNICATIONS.
9. THE APPLICANT WILL PROVIDE A CERTIFICATION FROM A REGISTERED ENGINEER THAT THE STRUCTURE WILL MEET THE APPLICABLE DESIGN STANDARDS FOR WIND LOADS PER THE REQUIREMENTS OF THE TELECOMMUNICATIONS INDUSTRY ASSOCIATION.
10. THIS PLAN PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT. PLAN IS SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.
11. ALL DETAILS SHOWN ARE 'STANDARD' OR 'TYPICAL' FOR REFERENCE ONLY. FOR ACTUAL DETAILS, SEE ARCHITECTURAL, STRUCTURAL, OR CONSTRUCTION PLANS BY OTHERS.
12. STRUCTURAL ANALYSIS/DESIGN TO BE PERFORMED BY OTHERS AT CLIENT AND/OR OWNER'S DISCRETION PRIOR TO COMMENCEMENT OF ANY WORK.

GENERAL NOTES

- 1. CONTRACTOR SHALL NOTIFY 'MISS UTILITY' (1-800-251-7777) 48 HOURS PRIOR TO DOING ANY EXCAVATION IN THIS AREA. CONTRACTOR SHALL CONTACT A SUBSURFACE UTILITY LOCATOR FOR LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL VERIFY EXISTING UTILITY LOCATIONS BY TEST PIT AS NECESSARY. LOCATION OF UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE AND FOR PLANNING PURPOSES ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. DAMAGE TO UTILITIES OR PROPERTY OF OTHER BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPAIRED TO PRECONSTRUCTION CONDITIONS BY THE CONTRACTOR.
2. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH ALL STATE AND LOCAL CODES AND ORDINANCES, THE LATEST EDITION THEREOF.
3. BUILDING PERMIT WILL BE OBTAINED BY BALTIMORE GAS & ELECTRIC. GENERAL CONTRACTOR SHALL SECURE ELECTRICAL PERMIT FOR THIS PROJECT FROM ALL APPLICABLE GOVERNMENTAL AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
4. CONTRACTOR SHALL COORDINATE ALL UTILITY CONNECTIONS WITH APPROPRIATE UTILITY OWNERS.
5. THESE PLANS ARE NOT FOR RECORDATION OR CONVEYANCE.
6. EXISTING PAVEMENT AND OTHER SURFACES DISTURBED BY CONTRACTOR (WHICH ARE NOT TO BE REMOVED) SHALL BE REPAIRED TO PRECONSTRUCTION CONDITIONS BY THE CONTRACTOR.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Chief, Development Engineering Division: 3.30.20
Chief, Division of Land Development: 4/13/2020
Director of Planning and Zoning: 4/13/2020

811 Know what's below. Call before you dig.
DEVELOPER/APPLICANT: BALTIMORE GAS & ELECTRIC COMPANY
PROPERTY OWNER: BALTIMORE GAS & ELECTRIC COMPANY
APPLICANT ATTORNEY: BANKERS TRUST CO TRUSTEE

NOTE: THIS IS AN ADDED SHEET SDP-04
MORRIS & RITCHE ASSOCIATES, INC.
BETHANY SUBSTATION - BGE SDP-70-14
ESSENTIAL TELECOMMUNICATION STRUCTURE
CONSTRUCTION DETAILS, GENERAL NOTES, AND SPECS

PROJ: 152018172 Bethany Substation Plans (LES) Rev 2/17/2020 2:47:49 PM Mitchell
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